

SEQUENCE LISTING

<110> Cashman, Neil
Paramithiotis, Eustache
Slon-Usakiewisch, Jacek
Haghighat, Ashkan
Pinard, Marc

<120> PRION PROTEIN PEPTIDES AND USES THEREOF

<130> 50111/002002

<150> 60/140,634

<151> 1999-06-23

<160> 34

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(4)

<223> Xaa = Any Amino Acid

<400> 1

Xaa Tyr Tyr Xaa

1

<210> 2

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(7)

<223> Xaa = Any Amino Acid

<400> 2

Xaa Tyr Tyr Xaa Tyr Tyr Xaa

1

5

<210> 3

<211> 10
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<220>
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<221> VARIANT
<222> (1) .. (10)
<223> Xaa = Any Amino Acid

<400> 3
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10

<210> 4
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<220>
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<221> VARIANT
<222> (1) ... (13)
<223> Xaa = Any Amino Acid

<400> 4
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10

<210> 5
<211> 16
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1) ... (16)
<223> Xaa = Any Amino Acid

<400> 5
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15

<210> 6
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(19)
<223> Xaa = Any Amino Acid

<400> 6
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa

<210> 7
<211> 22
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<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(22)
<223> Xaa = Any Amino Acid

<400> 7
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa
20

<210> 8
<211> 25
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(25)
<223> Xaa = Any Amino Acid

<400> 8
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25

<210> 9
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(28)
<223> Xaa = Any Amino Acid

<400> 9
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25

<210> 10
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(31)
<223> Xaa = Any Amino Acid

<400> 10
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25 30

<210> 11
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<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(34)
<223> Xaa = Any Amino Acid

<400> 11
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25 30
Tyr Xaa

<210> 12
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<212> PRT
<213> Artificial Sequence

<223> Synthetic peptide

 $\langle 222 \rangle \quad (1) \dots (4)$

<223> Xaa = Any Amino Acid

Xaa Tyr Tyr Arg

1

<211> 4

<212> PRT

<213> Artificial Sequence

<223> Synthetic peptide

 $\langle 222 \rangle \quad (1) \dots (4)$

<223> Xaa = Any Amino Acid

Xaa Tyr Tyr Gln

1

 $\langle 211 \rangle$ 4

<212> PRT

<213> Artificial Sequence

<223> Synthetic peptide

<222> (1) ... (4)

<223> Xaa = Any Amino Acid

Xaa Tyr Tyr Asp

1

<211> 13

<212> PRT

<213> Artificial Sequence

<223> Synthetic peptide

<222> (1) ... (13)

5

<223> Xaa = Any Amino Acid

<400> 15

Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa
1 5 10

<210> 16

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(16)

<223> Xaa = Any Amino Acid

<400> 16

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<210> 17

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(19)

<223> Xaa = Any Amino Acid

<400> 17

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1 5 10 15
Tyr Tyr Xaa

<210> 18

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(22)

<223> Xaa = Any Amino Acid

<400> 18

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1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa
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<210> 19
<211> 25
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(25)
<223> Xaa = Any Amino Acid

<400> 19
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25

<210> 20
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(28)
<223> Xaa = Any Amino Acid

<400> 20
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25

<210> 21
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(31)
<223> Xaa = Any Amino Acid

<400> 21
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa

<223> Xaa = Any Amino Acid

<400> 24

Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
20 25 30
Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
35 40

<210> 25

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(10)

<223> Xaa = Any Amino Acid

<400> 25

Xaa Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5 10

<210> 26

<211> 264

<212> PRT

<213> Bos taurus

<400> 26

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
1 5 10 15
Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
20 25 30
Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
35 40 45
Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
50 55 60
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
65 70 75 80
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
85 90 95
Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys
100 105 110
Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala
115 120 125
Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala
130 135 140
Met Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr
145 150 155 160
Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro
165 170 175
Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Cys Val Asn
180 185 190

Ile Thr Val Lys Glu His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn
 195 200 205
 Phe Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met
 210 215 220
 Cys Ile Thr Gln Tyr Gln Arg Glu Ser Gln Ala Tyr Tyr Gln Arg Gly
 225 230 235 240
 Ala Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser
 245 250 255
 Phe Leu Ile Phe Leu Ile Val Gly
 260

<210> 27
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 27
 Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp
 1 5 10 15
 Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30
 Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45
 Tyr Pro Pro Gln Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 50 55 60
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 65 70 75 80
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
 85 90 95
 Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
 100 105 110
 Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
 115 120 125
 Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp
 130 135 140
 Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln
 145 150 155 160
 Val Tyr Tyr Arg Pro Met Asp Glu Tyr Ser Asn Gln Asn Asn Phe Val
 165 170 175
 His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr
 180 185 190
 Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg
 195 200 205
 Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala
 210 215 220
 Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val
 225 230 235 240
 Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250

<210> 28
 <211> 256
 <212> PRT
 <213> Ovis aries

<400> 28
 Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala

1	5	10	15
Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly			
20	25	30	
Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly			
35	40	45	
Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Trp Gly Gln Pro His			
50	55	60	
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His			
65	70	75	80
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly			
85	90	95	
Gly Ser His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met			
100	105	110	
Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly Leu			
115	120	125	
Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe			
130	135	140	
Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr			
145	150	155	160
Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Arg Tyr Ser Asn Gln Asn			
165	170	175	
Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val			
180	185	190	
Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile			
195	200	205	
Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu			
210	215	220	
Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser			
225	230	235	240
Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly			
245	250	255	

<210> 29
 <211> 254
 <212> PRT
 <213> Mus musculus

<400> 29

Met Ala Asn Leu Gly Tyr Trp Leu Leu Ala Leu Phe Val Thr Met Trp			
1	5	10	15
Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn			
20	25	30	
Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg			
35	40	45	
Tyr Pro Pro Gln Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly Trp			
50	55	60	
Gly Gln Pro His Gly Gly Ser Trp Gly Gln Pro His Gly Gly Ser Trp			
65	70	75	80
Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His Asn			
85	90	95	
Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Leu Lys His Val Ala			
100	105	110	
Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met			
115	120	125	
Leu Gly Ser Ala Met Ser Arg Pro Met Ile His Phe Gly Asn Asp Trp			
130	135	140	
Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr Pro Asn Gln Val			

145 150 155 160
 Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His
 165 170 175
 Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr Thr
 180 185 190
 Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg Val
 195 200 205
 Val Glu Gln Met Cys Val Thr Gln Tyr Gln Lys Glu Ser Gln Ala Tyr
 210 215 220
 Tyr Asp Gly Arg Arg Ser Ser Ser Thr Val Leu Phe Ser Ser Pro Pro
 225 230 235 240
 Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250

<210> 30
 <211> 254
 <212> PRT
 <213> Mesocricetus auratus

<400> 30
 Met Ala Asn Leu Ser Tyr Trp Leu Leu Ala Leu Phe Val Ala Met Trp
 1 5 10 15
 Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30
 Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45
 Tyr Pro Pro Gln Gly Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly
 50 55 60
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 65 70 75 80
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
 85 90 95
 Asn Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
 100 105 110
 Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
 115 120 125
 Met Leu Gly Ser Ala Met Ser Arg Pro Met Met His Phe Gly Asn Asp
 130 135 140
 Trp Glu Asp Arg Tyr Tyr Arg Glu Asn Met Asn Arg Tyr Pro Asn Gln
 145 150 155 160
 Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn Asn Phe Val
 165 170 175
 His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr
 180 185 190
 Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile Met Glu Arg
 195 200 205
 Val Val Glu Gln Met Cys Thr Thr Gln Tyr Gln Lys Glu Ser Gln Ala
 210 215 220
 Tyr Tyr Asp Gly Arg Arg Ser Ser Ala Val Leu Phe Ser Ser Pro Pro
 225 230 235 240
 Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Met Val Gly
 245 250

<210> 31
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<223> Synthetic peptide

Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5

<213> Artificial Sequence

<223> Synthetic peptide

Cys Tyr Tyr Arg
1

<213> Artificial Sequence

<223> Synthetic peptide

Cys Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5 10

<213> Artificial Sequence

<223> Synthetic peptide

Cys Lys Tyr Glu Asp Arg Tyr Tyr Arg Glu
1 5 10

[illegible]

Sub
at
cost